#### Permit Number - ND2015-17050

# State of North Dakota Temporary Water Permit SWC Project No. 1400A

In response to an application for a temporary water permit dated Oct 19, 2015 as received in this office Oct 19, 2015, authority is hereby granted to:

Dakota Access LLC 1300 Main Street Houston, TX 77002

Contact Person: Monica Howard

Telephone (713) 989-7186

#### A Temporary Water Permit as follows:

Source: Little Missouri River

Point of Diversion: NW1/4 Sec. 26 Twp. 148 Rng. 096

Nature of Use: Pipeline Construction/Hydrostatic testing

Total Quantity of Water: 54,500,000.0 Gallons

Maximum Withdrawal Rate: 2,400.0 gpm

Period of authorized usage: Feb 29, 2016 through Nov 01, 2016

# WATER METER AND WEEKLY REPORTS ARE REQUIRED ON THIS TEMPORARY WATER PERMIT. SEE CONDITIONS FOR SPECIFIC INFORMATION.

#### **Conditions**

This temporary water permit is granted subject to use from the source by senior appropriators. Permission for access to the source must be obtained from all affected landowners. Failure to comply with any order of the State Engineer may result in forfeiture of this permit. The granting of a temporary water permit does not create a water right. Temporary water permits are not transferrable. Temporary water permits cannot be modified.

This temporary water permit is issued subject to water use from the source by senior appropriators.

Permit Holder must contact the North Dakota Department of Health at 701.328.5210 to complete and file NPDES Short Form C prior to discharging waters back into the waters of the state.

Failure to comply with any order of the State Engineer may result in forfeiture of this temporary water permit. This includes the withdrawal of water that is not authorized.

Prior to the beneficial use of water an automatic backflow prevention device (check valve) shall be installed in the above ground portion of the pipeline near the pump discharge. The injection of chemicals into the pipeline

Dated: Feb 26, 2016

Todd Sando, P.E. State Engineer ND State Water Commission 900 East Boulevard Bismarck, ND 58505

Jon C. Patch, P.E.

Director, Water Appropriation Division

cc: Dunn WRD

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shall be downstream from the check valve. Other automatic backflow devices and the placement of those devices may be utilized upon approval of the State Engineer.

Prior to the beneficial use of water under this permit, an in-line, continuous recording totalizing flow meter shall be installed on the pump discharge line to measure the quantity of water pumped from the water source. The water flow meter must meet the following requirements:

- A. The water flow meter must be certified by the manufacturer to record neither less than 98 percent nor greater than 102 percent of the actual volume of water passing the meter when installed according to the manufacturer's instructions.
- B. The water flow meter must have a display that is readable at all times, whether the system is operating or not.
- C. The water flow meter must have a totalizer that meets the following criteria:
  - a. Is continuously updated to read directly only in acre-feet, acre-inches, gallons, cubic feet, or barrels (42 US gallons);
  - b. Has sufficient capacity without recycling past zero more than once each year to record the quantity of water diverted in any one calendar year;
  - c. Has a dial or counter that can be timed with a stopwatch over not more than a 10-minute period to accurately determine the rate of low under normal operating conditions; and
  - d. Has a nonvolatile memory if the meter is equipped with an electronic totalizer.
- D. The water flow meter must be installed according to the manufacturer's specifications and must be properly maintained according to manufacturer's recommendations including proper winterization such as removal during the winter.
- E. The water flow meter shall be available for inspection by representatives of the State Engineer.

Meter readings taken at the same approximate time daily must be provided to the State Engineers Office on a weekly basis from the date of issue through the termination date of this Temporary Water Permit. This includes all weeks that water is not withdrawn or weeks that the project is shut down for any reason. The weekly summary of the date and the amount of water withdrawn can either be faxed to 701.328.3696 or e-mailed to <a href="mailto:dfarrell@nd.gov">dfarrell@nd.gov</a> once every week.

Dated: Feb 26, 2016

Todd Sando, P.E. State Engineer ND State Water Commission 900 East Boulevard Bismarck, ND 58505

Director, Water Appropriation Division

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Holders of Temporary Water Permits must complete the Annual Water Use Report for each calendar year that the Temporary Water Permit is authorized. Annual Water Use Reports for Industrial Temporary Water Permits are due in the State Engineer's Office within 30 days of the close of the calendar year or within 30 days of the close of the authorized period of the Temporary Water Permit. Failure to comply with any order of the State Engineer may result in the forfeiture of this permit.

A weatherproof copy of this Temporary Water Permit must be attached the equipment withdrawing water and must be available for inspection by representatives of the State Engineers Office or the State Water Commission. A copy of this Temporary Water Permit must be posted in a conspicuous place at each booster pump where water under this permit is pumped.

Dated: Feb 26, 2016

Todd Sando, P.E. State Engineer ND State Water Commission 900 East Boulevard Bismarck, ND 58505

Director, Water Appropriation Division

Jon C. Patch, P.E.

cc: Dunn WRD

## OFFICE OF THE NORTH DAKOTA STATE ENGINEER RECOMMENDED DECISION

Todd Sando, P.E., State Engineer

Approved by: Jon Patch, P.E., Director, Water Appropriations Division
Reviewed by: William Schuh, Assistant Division Director
From: Daniel J. Farrell, Hydrologist Manager – Surface Water-Missouri Basin DAN 2-21-18

Subject:

Temporary water permit application – Dakota Access LLC

Date:

26 February 2016

The State Engineers Office received an application for a temporary water permit from Dakota Access LLC on 19 October 2015. This application requested the authorization to use 54,500,000 gallons (167.25 acre-feet) of water at a maximum rate of withdrawal of 2,400 gallons per minute (5.348 cubic feet second) from the Little The requested point of diversion was listed on the application as the Missouri River. northwest quarter of Section 26, Township 148 North, Range 96 West of Dunn County. The nature of use for the proposed water was listed as "hydrostatic testing of new pipeline and water for pipeline installation via HDD", which has been cataloged as "Pipeline Construction". HDD is the abbreviation for Horizontal Directional Drilling.

A hydrologic review was completed on the application submitted by Dakota Access, LLC. The worksheet generated in this review is available for review if needed. The worksheet will be filed with the temporary water permit in the master file.

The drainage area upstream of the requested point of diversion was estimated to be 9,010 square miles, using the GIS software available to staff of the State Engineers Office. The Hydrology Manual for North Dakota indicated that the annual yield 80 years out of 100 would be approximately 18 acre-feet per square mile, with about 51% of the annual yield expected from snowmelt runoff. This would indicate that about 162,180 acre-feet could be expected as an annual yield with approximately 82,712 acre-feet expected from snowmelt runoff.

Review of the water permit database indicated that there are 43 senior water permits on the Little Missouri River within the State of North Dakota. The approved appropriation from the Little Missouri River for these senior water permits equals 4,876 acre-feet annually based on the database. All but two of the senior water appropriators are upstream of the requested point of diversion. The two senior water appropriators

downstream of the requested point of diversion have a total approved appropriation of 78 acre-feet.

A flow distribution analysis was performed using the drainage area ratio method. The nearest stream-flow monitoring gage was the U.S. Geological Survey gage number 06337000 labeled "Little Missouri River near Watford City, ND" located the northwest quarter of the southeast quarter of the southeast quarter of Section 35, Township 148 North, Range 99 West. The mean daily stream flows were taken for two periods; Water years 1935 to 2014 and Water year 2014. Water years are from October 1 through September 30 of the following year to account for the winter snowfall and resulting runoff on the following spring and summer. A graph of the flow distribution analysis is attached. The flow distribution analysis indicated that the period to consider the possible use of water for temporary water permits would be from the middle of February to the middle of November. The time period of this draft temporary water permit, February 29 through November 30, does not fit within the time frame indicated on the flow distribution analysis, so the time period will be modified with a termination date of November 1, 2016.

Climatic conditions no longer favor the use of excess waters. One of the indicators for climatic conditions is the Palmer Drought Severity Index (PDSI). The region of North Dakota including the requested point of diversion (Region 4) has a current PDSI value of -0.16, indicating that the region is classified as "Near Normal" (-1.9 to +1.9). The trending of the PDSI for Region 4 over the last three weeks shows a little variation in the Near Normal category. The PDSI value three weeks ago was -0.21, whereas the current value is -.16. Since the values still fall in the "Near Normal" category, the Surface Water Section of the Water Appropriation Division can still recommend the use of the waters of the state in this region of North Dakota. However, the section must exhibit some caution and awareness in future reviews of temporary water permit applications in this region, as the PDSI for this region of North Dakota could trend toward drier conditions.

A water flowmeter has been recommended for monitoring the daily water use from this application. The water flowmeter and weekly reporting of the daily meter reading will be required due to the large requested appropriation and the current climatic conditions.

Therefore, the application by Dakota Access, LLC to put 54,500,000 gallons (167.25 acre-feet) of water to the beneficial use of pipeline construction and hydrostatic testing from the Little Missouri River via a point of diversion in the northwest quarter of Section 26, Township 148 North, Range 96 West is hereby recommended for approval with the modifications to the terminal date and conditions attached to the permit.

Daniel J. Farrell



## APPLICATION FOR A TEMPORARY WATER PERMIT

NORTH DAKOTA STATE WATER COMMISSION WATER APPROPRIATIONS SFN 60158 (07/2014)

2015 STATE WATER COMMISSION

MAIL THE COMPLETED APPLICATION TO:

State Engineer • ND State Water Commission • State Office Building • 900 East Boulevard • Bismarck, ND 58505-0850 BY FAX - (701) 328-3696 • BY EMAIL - waterpermits@nd.gov

(SIGNATURE MUST BE PROVIDED)

0-19-15

NOTE: Use one application for each type of source (surface water or ground water). Use one application for each different surface water source Complete all lines. If this application is not satisfactorily completed, it will be returned. If more space is necessary, attach additional sheets. Please type or print in ink. No map is required.

1 10000 13 po 01 p				1030
Name of Applicant Dakota Access, LLC	)			
Mailing Address 1300 Main Street				
city Houston	State TX		<sup>Zip Code</sup> 77002	
Home Telephone Number	Work Telephone Number 713-989-7186			
Cell Phone Number 713-898-8222	monica.howard@energytransfer.com			
Contact Person (if applicant is not an individual) Monica Howard Telephone Number				
Source of Water Supply (check one) Surface Water Source Ground Water Source				
Name of Source (if surface water): Little Missouri River		County Dunn		
1/4 1/4 (if needed) NW 1/4 Section 26	6	Township 1	48N	Range 96W
Purpose for Which Water Will be Used: Hydrostatic testing of new pipeline and water for pipeline installation via HDD				
Total Quantity of Water Requested: (complete one)	7.25	Gallons 54,500,000 Barrels		
Unit Conversions: • 1 ac ft = 325,851 gallons • 1 ac ft = 7,758.3 barrels				
<1 AF \$75 1-10 AF \$125 >10 AF \$200				
Fee must accompany signed temporary water permit application.				
Withdrawal rate at which water is proposed to be diverted at the location listed above: \$,35				
Period of Usage: (up to 12 months) From 12/1/2015			Through 1	1/30/2016
Signature: Maria House			Date: 10	/2/15
Printed Name: Monica Howard				

Upon receipt of this form, the State Engineer will forward a written response to the applicant within approximately 30 days. If the application is approved, the granting of temporary water permit does not create a water right. If you have any questions, call (701) 328-2754.

47.61434 182,88135 3348

# 2016 Temporary Permit Annual Water Use Report (Return all pages of this form even if no water was used)

ND2015-17050

Permit Number:ND2015-17050	Make Name and/or Address corrections below:		
Dakota Access LLC 1300 Main Street			
Houston, TX 77002			
Phone: (713) 989-7186			
Report the total in: Gallons or Barrels or Acre-I Report the total amount of water per month if applic JANUARY			
FEBRUARY			
	SEPTEMBER		
	OCTOBER		
NOVEMBER			
JUNE			
JONE	DECEMBER		
	TOTAL ANNUAL USE		
Water Source: Ground Water or Surface Water Pumping Rate:( Circle: Barrels,	nt of Diversion NW1/4 Sec. 26 Twp. 148 Rng. 096		
	(0.000, 2.000, 0.000, 0.000, 0.000,		
WATER PERMIT CRITERIA: Source: Little Missouri River Nature of Use: Pipeline Construction/Hyd Total Quantity of Water: 167.25 Acre-F Maximum Withdrawal Rate: 2,400.0 gpi Period of authorized useage: Feb 29, 201	Feet m		
II. MAKE ANY ADDITIONAL REMARKS BEI Note: 1 Acre-Foot = 325,851 gallons.	LOW:		
E-Mail: depotreporting@nd.gov Please return to:	Signature		
North Dakota Office of the State Engineer State Office Building 900 East Boulevard Bismarck, ND 58505	Signature		
Phone (701) 328-2754	Date :		